2021 PUBLIC SAFETY POWER SHUTOFF READINESS

California Public Utilities Commission August 3, 2021



SCE PSPS ACTION PLAN: 2021



PSPS ACTION PLAN: BY THE NUMBERS



72 Frequently impacted circuits targeted for expedited grid hardening



70% Reduction in PSPS duration for the most frequently impacted circuits*



More than **700** miles of covered conductor to be deployed as part of expedited grid hardening



7 New switches9 New weather stations17 Automation upgrades of existing switches



5 New Community Resiliency zones



81,000 Customers removed from PSPS scope through exceptions and switching protocols



100+ Virtual meetings with our communities and partners in 2021



4,363 Critical Care backup batteries deployed since program inception



58% Reduction in scope,47% Reduction in eventfrequency on frequently impacted circuits*



78 Circuit segment exceptions approved in 2021

REDUCING PSPS:

EXPEDITED GRID HARDENING AND CIRCUIT SEGMENT EXCEPTIONS

Expedited grid hardening will **reduce the need** for PSPS on the 72 most frequently impacted circuits by:

- Installing covered conductor
- Increasing circuit segmentation
- Adding weather stations
- Updating switching/operational protocols

Targeting completion by October 1.



81,000

70%

CUSTOMERS REMOVED FROM PSPS CONSIDERATION THROUGH EXCEPTIONS AND SWITCHING PROTOCOLS

ESTIMATED REDUCTION IN PSPS OUTAGE DURATION BY OCTOBER 1*

PROGRESS: 30% ESTIMATED REDUCTION IN PSPS OUTAGE DURATION HAS BEEN ACHIEVED TO DATE. RESOLVING CONSTRUCTION CHALLENGES ON SELECT CIRCUITS.

* Based on historical analysis that assumes weather and fuel conditions are identical to 2020 and calculates the reduction in PSPS outages on frequently impacted circuits that would occur if the mitigations had been in place for those 2020 events.

REDUCING PSPS: PREPARING FOR FIRE SEASON THROUGH INSPECTIONS

ANNUAL INSPECTIONS

Performing annual inspections **beyond compliance requirements** for over **160,000 distribution** and **16,000 transmission** structures to evaluate for fire season risk

- 170,000+ completed distribution ground inspections
- **100,000+** completed aerial distribution inspections
- **17,000**+ completed transmission ground and aerial inspections
- **50%** of distribution circuits via infrared technology



SUMMER READINESS

Launched 2021 summer readiness initiative to increase safety through accelerated inspections for **12,000 distribution** and **6,700 transmission** structures for Areas of Concern (AOCs)

- 6,000 risk inspections for newly identified distribution structures in the top 5 AOCs
- 7,000 aerial inspections for newly identified distribution and transmission structures
- Accelerated brush clearing for 11,000 poles

REDUCING PSPS: PREPARING FOR FIRE SEASON THROUGH VEGETATION MANAGEMENT



VEGETATION MANAGEMENT

Reduces the threat that objects could contact powerlines

- **1.4 million trees** in right-of-way areas inspected annually and ~**70% are pruned**
- 150,000 trees outside rights-of-way are assessed for hazards and ~10% removed
- 11,000 palm trees posing potential blow-in hazards to be removed within the next two years. From Jan.-Jun. 2021, SCE conducted nearly 5,000 removals and 600 crown reductions

EXECUTING PSPS EFFECTIVELY: THRESHOLDS FOR ACTIVATION AND DE-ENERGIZATION

FIRE	
POTENTIAL	
INDEX (FPI)	

Formula estimates the potential of fire ignition and spread: Normal: 1-11 Elevated: 12-14 Extreme: 15+

ACTIVATION THRESHOLDS FOR MOST CIRCUITS

Currently set at 12, systemwide

Under evaluation to add further granularity

Bare wire circuits:

99th percentile historic windspeed for a given circuit <u>or</u> NWS Wind Advisory of sustained windspeeds of 31 mph or gusts of 46 mph

Fully covered conductor circuits:

NWS High Wind Warning of sustained windspeeds of 40 mph or gusts of 58 mph

Wind speeds determined separately for each circuit based on specific risks of the event

Technical paper and fact sheet available at sce.com/pspsdecisionmaking

WINDSPEED THRESHOLD FOR ACTIVATION

Wind speeds at which our system is vulnerable to flying debris or that pose a risk to our infrastructure



DE-ENERGIZATION THRESHOLD

EXECUTING PSPS EFFECTIVELY: DECISION-MAKING TRANSPARENCY



EXECUTING PSPS EFFECTIVELY: IMPROVED NOTIFICATIONS

2020







REVISED MESSAGES

INCREASED ACCURACY & TIMING

PUBLIC SAFETY & CRITICAL INFRASTRUCTURE OUTREACH

INFORMING PARTNERS AND CUSTOMERS: NEW PUBLIC SAFETY PARTNER PORTAL AND SCE.COM IMPROVEMENTS

ependent Livi	ource Center: 🛛 🖾 🗙	sprint start sprint			
ounty	Santa Barbara	PUBLIC SAFETY PARTNER PORTAL			
acility	Independent Living Resource Center	Available information 24/7 to help			
lddress	423 W Victoria St.	with safety planning			
îme	8am to 10pm	During events provides current			
lity	Santa Barbara	PSPS status and information			
tate Zoom to		A Fore			
11	No star	Pe la kina			
		Lookup Power Outage Status by Address			

• New AFN web page sce.com/afn

Can't find your address? If your address doesn't appear in the drop-down choices, it m the addresses in our system.

INFORMING PARTNERS AND CUSTOMERS: INCREASED PROGRAM OUTREACH

Informing customers ahead of fire season about available programs and services. Generated 410 million impressions on PSPS and emergency preparedness so far this year.

- Digital
- Connected TV
- Social media Newsletters

•

- Radio •
- ٠
- Newspapers
- Bill messages 20 languages



Sign Up Now

EDISON



INFORMING PARTNERS AND CUSTOMERS: ACCESS & FUNCTIONAL NEEDS OUTREACH

To identify and better serve customers with access and functional needs (AFN), we are:

- Collaborating with the Hospital Association of Southern California to reach patients across
 185 hospitals
- Engaging with the **Statewide AFN Council** to reach the clients of council agencies
- Leveraging 1,600 CBOs to reach their networks
- Medical Baseline enrollments increased 6%*
- Identified 2 million AFN customers
- New dedicated AFN liaison officer during PSPS events
- Expanded **escalated notification attempts**, including in-person, if necessary, to all Medical Baseline customers



Patients in this category can also sign up for critical alerts and notifications about outages, including Public Safety Power Shutoffs.

MITIGATING IMPACTS OF PSPS: EXPANDED CUSTOMER CARE PROGRAMS FOR AFN

CRITICAL CARE BACKUP BATTERY

Expanded fully subsidized Critical Care Backup Battery program to support all eligible Medical Baseline customers*

- 3,642 deployed to-date in 2021
- 4,363 cumulative since 2020
- 5,000 forecasted by year-end

PORTABLE GENERATOR \$500 REBATE

Expanded to all Medical Baseline or income-qualified customers, and removed water pumping dependency

211 REFERRAL SERVICE

Offers services, outreach, and customer support to AFN customers (September 2021)

^{*}Enrolled in Medical Baseline Allowance program, CARE or FERA, and in HFRA Note: See appendix for a comprehensive list of programs



MITIGATING IMPACTS OF PSPS: EXPANDED CUSTOMER ASSISTANCE



PORTABLE GENERATOR \$200 REBATE

New rebate available to all HFRA customers

POWERSTATION BATTERY REBATE INCREASED TO \$75

Increased from \$50, available to all HFRA customers

DISCOUNTED HOTELS

Expanded number of hotels offering discounts to SCE customers in HFRAs

MITIGATING IMPACTS OF PSPS: SUPPORTING OUR COMMUNITIES

Keeping local officials updated to support their response efforts.

Consulting

community, CBO, public health and local and tribal governments during each event.

COMMUNITY CREW VEHICLES (CCV)

Can be deployed rapidly for remote locations. Location and hours listed online before shutoffs.

63

COMMUNITY RESOURCE CENTERS (CRC)

Contracted and available based on potential shutoff locations. Location and hours listed online before shutoffs.

• RESILIENCY ZONES

Enable backup power generation at certain essential sites in remote communities.

INFORMING PARTNERS AND CUSTOMERS: INCREASED COMMUNITY OUTREACH

Sharing information with stakeholders and customers.

Building on feedback to better communicate, coordinate, and share information. **COMMUNITY MEETINGS**

POWER OUTAGE WEBINARS

3 COUNTY EMERGENCY MANAGEMENT AGENCY MEETINGS

10 CRITICAL INFRASTRUCTURE PROVIDER WORKSHOPS

PSPS WORKING GROUP & ADVISORY BOARD MEETINGS

Time frame: March – July 2021

INFORMING PARTNERS AND CUSTOMERS: LOCAL AND TRIBAL GOVERNMENT OUTREACH

Engaging with **140 local and tribal** governments in HFRAs.

- Soliciting input on areas including CRC/CCV locations, AFN engagement, and community safety
- PSPS workshops for tribal governments to understand specific needs and get feedback
- Workshops on resiliency efforts and best practices
- Training sessions on Public Safety Partner Portal
- Communication exercises to test PSPS email and text notifications

SURVEY OF LOCAL GOVERNMENTS IN HIGH FIRE RISK AREAS*

90%

Familiar with SCE's work to reduce wildfire risk

98%

Familiar with or heard of SCE's PSPS program

63%

Support SCE's PSPS program

We will always **listen**, **respond** and **improve** our PSPS program so we can **better care** for our customers and communities while keeping them **safe**.





APPENDIX



SCE PSPS: ACTION PLAN PROGRESS

	REDUCE THE USE OF PSPS	EXECUTE PSPS EFFECTIVELY	MITIGATE PSPS IMPACTS	INFORM PARTNERS & CUSTOMERS	IMPROVE POST- EVENT REPORTING
COMPLETE AS OF 7/28/21	5 OF 7 ACTIVITIES	49 OF 60 ACTIVITIES	7 OF 11 ACTIVITIES	31 OF 48 ACTIVITIES	5 OF 5 ACTIVITIES
	We are installing covered conductor, switching devices and weather stations to accelerate grid hardening and improve the resilience of circuits most frequently impacted by PSPS. We're targeting 700 miles of covered conductor, plus equipment upgrades that should cut expected PSPS durations by half and reduce the scope and frequency of PSPS.*	We've improved PSPS notifications – by improving notification clarity, eliminating redundancies and automating processes to be more efficient. We're developing and posting media and education materials on our website** to improve transparency and understanding for Public Safety Partners and customers.	We are expanding important customer programs like our Critical Care Backup Battery program to help customers through PSPS events. We are making it easier for customers to enroll in our Medical Baseline program and are developing a website to provide resources for our customers with Access and Functional Needs	We launched our Public Safety Partner Portal and are making enhancements to our SCE.com page to improve access to information before and during PSPS events. We have hosted over 100 virtual community meetings, Power Talks, and discussions and continue to plan events and workshops to help communities prepare for PSPS.	We partnered with PG&E, SDG&E and the CPUC to align on a common reporting format to improve the clarity and consistency of PSPS post-event reporting. The PSPS OIR Phase 3 Decision helped inform the structure and content of the post- event reports.

* Assuming identical weather and fuel conditions as 2020 ** sce.com/pspsdecisionmaking

PSPS MITIGATIONS: PROGRAM UPDATE



Expedited Grid Hardening

- Completed installation of 382 miles (53%) of covered conductor from target of 718 miles
- Addressing construction challenges resulting in low confidence miles developing mitigations to recover portion or most of the CMI (customer minutes of interruption)
- Increasing wind speed thresholds for circuits or circuit segments where covered conductor installation is complete

Circuit Segment Exceptions

- Reviewed 91 circuits in 2021 to analyze whether wildfire risk is temporarily abated or no longer exists on certain circuit segments
- Approved 78 of 91 exceptions, resulting in 81K customers removed from PSPS scope, and an additional 17K customers benefiting from raised wind speed thresholds due to exception review

Anticipated PSPS Reduction on Frequently Impacted Circuits*

- Scope (customers shut off): 58%
- Frequency (circuits de-energized): 47%
- Duration (CMI): 70%

PROGRAMS AND SERVICES: FOR AFN CUSTOMERS

Resource Centers, Cool Centers, and Resiliency Zones	 63 Community Resource Centers (CRCs) & 8 mobile Community Crew Vehicles (CCVs) Cool centers administered by cities and counties from June 1 to October 15; SCE provides battery operated fans, snacks, water, etc. 8 Resiliency Zones (5 ready; 3 in-progress) which provide temporary generation to certain essential sites in communities (e.g., gas stations) At CRC and CCV locations, community members can access: Wi-fi, mobile charging for devices such as cell phones or medical equipment (available pending COVID-19 protocols), bottled water, light snacks Firewood, blankets, bulk water, ice (dependent on weather and or location specific needs) Cooling/heating, seating, refrigeration for medicine (some locations), ADA accessible restroom (all available at indoor CRCs only, pending COVID-19 protocols) Resiliency kits are provided at CRC/CCV locations, and are in a tote bag with program fact sheets, resiliency items (e.g., LED backup lightbulb or flashlight, precharged solar phone charger), and PPE (hand sanitizer, mask) Ice vouchers
Back Up Power Programs	 Critical Care Backup Battery (CCBB) program provides a right-sized, fully subsidized back-up battery with a solar panel for charging and a 3-year warranty to eligible customers (customers enrolled in Medical Baseline, California Alternate Rates for Energy (CARE) or Family Electric Rate Assistance (FERA), and in HFRAs \$75 rebate for portable batteries for customers in HFRAs \$200 rebate for portable generators for customers in HFRAs \$500 rebate for portable generators for customers either enrolled in the Medical Baseline program or enrolled in CARE/FERA in HFRAs Statewide Self-Generation Incentive Program (SGIP)
Food, Transportation, Temporary Lodging	 211 Referral Service (estimated launch in Sep. 2021): provide outreach, case management support in PSPS preparedness, and direct services (meal delivery, transportation, and temporary lodging for AFN customers) Discounted hotels also available in HFRAs
Medical Baseline & Self-Certify Sensitive	 Medical Baseline Allowance program supports our customers who rely on electrically powered medical devices, and provides additional electricity (16.5 kWh) at the lowest price per day If a household member has a condition that can be significantly affected by a disconnection of service, customers have the option to temporarily self-certify as sensitive for 90 days, which will enable an in-person visit, if contact cannot be made
Notifications and In-Event Management	 Medical Baseline customers will receive escalated contact attempts, including an in-person visit, if necessary, upon PSPS notification delivery failures Enrolled alert account holders of record to receive customer notifications before, during, and after PSPS events via phone, text, and email Non-account holders can receive zip code level alerts and alerts from social media/NextDoor Dedicated AFN Liaison Officer during events and coordination with CBOs (estimated for Sep. 2021) Back-up generator requests considered on an emergency basis
Income- Qualified & Disadvantaged Community (DAC) Programs	 CARE reduces energy bills for eligible customers by about 30%; FERA reduces electric bills for qualified households by 18% Energy Savings Assistance Program (ESAP); Low Income Home Energy Assistance Program (LIHEAP) referrals; Energy Assistance Fund Arrearage Management Plan (AMP) Program, California's Emergency Renters Assistance Program (ERAP) outreach, payment arrangements Single-Family Affordable Solar Homes (SASH); Disadvantaged Community Single-Family Affordable Solar Homes (DAC-SASH); Solar on Multifamily Affordable Housing (SOMAH) Electric vehicle programs; Disadvantaged Community pilots (e.g., San Joaquin Valley electrification pilot)

USING DATA: AFN POPULATION CONCENTRATION

SCE uses AFN density data to inform decisions

- Risk of de-energization analysis
- Activation of Community Resource Center locations through SCE's Customer Dashboard (AFN population density by circuit)

SCE is collaborating with the AFN Statewide Council to identify "electricity dependent" clients of the IHSS program, Regional Centers, and Medicare on an aggregated basis



FOR MORE INFORMATION:

SCE Wildfire Webpage – <u>sce.com/wildfire</u>

SCE Notifications

- Sign up for PSPS alerts <u>sce.com/pspsalerts</u>
- Sign up for the Energized by Edison Wildfire Mitigation Newsletter – <u>energized.edison.com/newsletter</u>

Situational Awareness

PSPS maps and information – <u>sce.com/psps</u>

- PSPS decision making sce.com/pspsdecisionmaking
- Role of weather in PSPS sce.com/fireweather
- CPUC wildfire maps <u>ia.cpuc.ca.gov/firemap/</u>
- Fire cameras <u>alertwildfire.org</u>

Preparedness

- SCE emergency preparedness sce.com/beprepared
- CAL FIRE preparedness readyforwildfire.org

Vegetation Management

 Vegetation Management – <u>sce.com/safety/power-lines</u>; contact 1-800-655-4555 or <u>safetrees@sce.com</u>

Customer Programs & Rebates

- SCE Customer Programs & Resources sce.com/customerresources
- SCE Marketplace (rebates and programs) marketplace.sce.com
- SCE Medical Baseline Program sce.com/medicalbaseline
- Self Generation Incentive Program (SGIP) sce.com/sgip or selfgenca.com

Community Meetings

 Join SCE's wildfire safety community meetings – sce.com/wildfiresafetymeetings